41 K. 12. 28

Novum Lumen Chirurgicum:

OR, A NEW LIGHT OF CHIRURGERY.

Wherein is Discovered, a much more Safe and Speedy way of *Curing* WOUNDS, than hath heretofore been usually Practiced.

Illustrated with several Experiments made this Year in Flanders.

Authore

JOHAN. COLBATCH, *Med.*

LONDON,

Printed for *D. Brown*, at the *Bible* and *Swan* without *Temple-Bar*, 1695.

706. 09

TO THE KING'S Most Excellent Majesty.

May it please Your Majesty,

THE great Experience I found of Your Majesty's Bounty and Favours, in the late Campagne in *Flanders*, and more especially, that Inexpressible One, intimated by Sir *Henry Bellasis*, I mean Your Majesty's

sty's good Wishes, and Care of the meanest of Your Subjects; when both his Life and Reputation were designed to be snatched away, by Wicked and Unreasonable Men, whom he never injured. These Considerations, Royal SIR, as they bind me perpetually to Dedicate my Life to Your Service; so they also give me Encouragement to presume, the same Fountain of Favour and Goodness will allow Your Princely Patronage, to the ensuing Sheets; which I had leisure to write under Your Majesty's Banner, the last Summer; when there was little Action in the Field.

I am ſenſible every new Hypotheſis, is at firſt exploded, and my Medicines being entirely new, as well as the Method of their Uſe and Application, I muſt meet with a Legion of Opponents, which makes me the more to ſtand in need of Your Royal Support; which yet I beg no further, (in this Caſe) but that they may have fair Play, and a clear Stage: Let them ſtand or fall, as they merit and deſerve; ſince I am aſſured they will ſtand the moſt ſtrict Examination and ſevereſt Teſt.

I know that all Arts and Sciences in every Age, find a beneficial Improvement by

Ingenious Inquirers; and that the Art of Chirurgery, (as it hath been hitherto practiſed) did never arrive to the Zenith of its Perfection, I have made bold (in the ſubſequent Diſcourſe) to affirm. In which Poſition, I am the more confirmed, when I reflect upon the Modern diſcovery of the Circulation of the Blood, by the Learned Dr. *Harvy*; before which time a Man would have been accounted a Diſtracted Perſon, who ſhould have aver'd, that all the Blood in a Man's Body, ſhould paſs through his Heart, fifty times in an Hour. And much greater diſcoveries and Improvements

ments, ſince St. *Paul* went Coaſting to *Rome*, are found out in the Art of Navigation, by the aſſiſtance of the Compaſs; for now every Cabin-boy can demonſtrate the verity of Antipods; tho' formerly a Learned Prelate, who firſt Preached that Doctrine, was accounted an Impoſtor, and ſeverely cenſured for the ſame.

I pretend not, Sir, to eſtabliſh my new Doctrine, by working of Miracles, but I hope, I may with Modeſty enough, be poſitive in my Aſſertion, that the Method of Chirurgery hitherto uſed is not the beſt. That all

Probes,

Probes, and Tents, all Digeſtive and Supparating Medicines, all Cauteriſing and ſtreight Ligatures, are Injurious to their Patients, and Procraſtinate their Cure. I am alſo certain, that my Medicines will Cure any Wounds, whether in the Fleſh, or within the Cavity of the Body, where as dangerous Wounds, were ever Cured by any former Applications, and that with much greater ſpeed and ſafety to the Patient, ſince they prevent Feavors and Mortifications.

If my Medicines prove any way beneficial to Mankind in General, I ſhall be abundantly

abundantly satisfied and rewarded; having no higher Ambition, save that, I desire to be accounted, what I shall ever endeavour to approve my self,

ROYAL SIR,

The Most Humble, and

Most Obedient of Your

Majesty's Subjects

and Servants,

JOHN COLBATCH.

TO THE

READER.

FRiendly Reader, I have for about Seven Years applyed my ſelf, with all Heartineſs and Vigour, to the making of ſuch Experiments, whereby I might be capable, in ſome meaſure, to relieve the neceſſities of thoſe, who laboured under ſuch Diſtempers, which, by the Medicines generally uſed, are, if at all, yet very difficultly to

be

be Cured: And I thank God, my labours have not been altogether ineffectual.

Amongst the Multitude of my Experiments, I thought it might not be lost labour, to attempt something in Order to be serviceable to those Worthy Persons, who out of a principle of Bravery, and Love to their Country, do run themselves into the utmost hazard of their Lives; who, if they chance to be Wounded, tho' but slightly, it many times proves worse to them than Death it self; nay frequently, after they have endured the greatest Torture and Misery, Death, at last, puts a Period to all.

Having

To the Reader.

Having at length lighted upon a pair of Medicines, the one Internal, and the other External, which I ſuppoſed would anſwer my Intentions; I began to make Experiments upon Dogs and other Animals, Wounding them in the moſt deſperate manner I could contrive; and in about a Hundred Experiments that I made, I had not above five that miſcarried, three of which were made before the Right Honourable the Lord Cut's; *but two of thoſe three, as I can plainly make appear, after the danger was over, were Poyſoned. I was likewiſe much abus'd in a Soldier of his Lordſhip's Regiment, whom after my Medicines*

dicines had set him free from all ill Symtoms, and he almost well, in my absence for four or five Hours, (having before for five Days and Nights, been constantly with him, for fear of Roguery,) was made Drunk, but by whom I know not, and in an Hour or two after my return, he Dyed.

My failing in these last Experiments, I suppose, was the Reason, I was not then employed by His Majesty. However, being sufficiently satisfied of the worth of my Medicines, by the success I had in the Multitude of Experiments, I had before made upon Dogs, and two or three upon Human Bodies; I laid

laid out a large Sum of Money in preparing a good quantity of them; and with them, at my own charge, I went to Flanders. *When I came there, His Majesty was most Graciously Pleased, by a Publick Order throughout the Army, to give me an opportunity of making appear the Truth of my Pretentions; and, thanks to God, amongst the great number of Patients I had, there was but one that miscarried, and how he Dyed I cannot tell, being my self at that time, ill, almost unto Death, and so not capable of looking after him.*

The Malice of some People against me is sufficiently known;

but this I am sure of, that not one Patient I had in Flanders, *but will contradict that Printed Relation, (in the Philosophical Transactions for* February *last,) with* Mr. Cooper's *name to it; wherein he pretends to tell the World, That my External Medicine is the greatest Caustick imaginable. Now the Nature of all Causticks is, to create great Pain, but of my Medicines the quite contrary; for instead of that, they are the the greatest* Annadynes, *or easers of Pain, that I ever met with. One very signal instance whereof you will see in my Experiment made before Sir* William Russel *&c.*

My

To the Reader.

My Medicines, where they are timely enough, and regularly uſed, Cure all ſorts of Wounds without bringing them to ſupparation; but where ſupparation is once begun, they are, I ſuppoſe, the beſt digeſtives now known: For *where Wounds have been brought to ſupparation, and in a very ill condition, which by the common Methods, would have taken up many Weeks, before they were, if at all, to be Cured. By my Medicines, as in the caſe of the Soldier of Sir* James Leſley's *Regiment, and that of Colonel* Coyes, *&c. it has been performed in a ſmall time.*

To the Reader.

In ſome Gun-ſhot Wounds where the Bones are extreamly ſhattered; by the common Methods, the bringing away of broken ſplinters, is extreamly hazardous and troubleſome, but by my Methods not ſo; though ſuch Wounds require a much longer time before they are well, than others; but who in ſuch Caſes, will not have a little patience, when he is free from Pain, and under no confinement. All the Patients I have had under theſe circumſtances, have been fatigued with long marches, expoſed to Wind and ill Weather, and endured all other ſorts of hardſhips, which may have occaſioned their being

ing longer in Cure, than otherwiſe they might have been.

The number of Experiments I have made uſe of, tho' I might have added many more, in the enſuing Tract, is not great; but thoſe that are, I ſuppoſe, may be ſufficient to demonſtrate the Truth of my pretenſions; which are; That all Curable Wounds may be Cured with much more eaſe and ſpeed, than by the common Methods, and that a great number of thoſe Wounds uſually accounted Mortal, are not ſo. And likewiſe, that the ſtopping of great Fluxes of Blood, the nonperformance of which, coſts many People their Lives; is to be performed with the greateſt eaſe imaginable.

To the Reader.

I have been ſufficiently deterred from proſecuting my moſt juſt deſignes, for the good of Mankind: Having firſt of all, beſides many other great affronts, been publickly threatned to be Murthered; afterwards, my ſelf with two of my Friends, were ſecretly Poyſoned; one of whom, in a ſmall time, dyed in a moſt miſerable condition, and we two who ſurvive, narrowly eſcaping with our Lives. However, the utmoſt malice of theſe pernicious People, ſhall never hinder me from going on in my moſt honeſt undertakings.

Tho' I have met with this ill treatment, from ſome mean, ill principled People; yet I muſt own, that the Engliſh *Army affords*

affords a great many Chirurgeons, who are Men of extraordinary Worth and Candor, from ſome of whom, I have received moſt civil treatment.

I have purpoſely omitted the uſing of any, or at leaſt very few, terms of Art, but have made every thing as plain as I can, my deſign not being to gratifie and pleaſe Criticks, but to ſatisfie Gentlemen of the Truth of matter of Fact.

As for my not mentioning what my Medicines are, with the manner of preparing them, I hope, for the preſent, that will be excuſed, by Reaſon that every one knows where to be furniſhed with them, ready to their Hands.

But

To the Reader.

But some may say, that it looks too like a Quack to give large Encomiums of those Medicines, the which I have not made publick to the World. To which I answer: That some Men's Censures I value not, having so many great Presidents before me, who gave large and deserved Encomiums of those Medicines, they made not Publick, during their Lives; some of them not at all, and yet their Medicines were of general use and Reputation; as Helmont's Mercurius Diaphoreticus, Willis's *Preparation of Steel, and Tincture of Sulphur*, Needham's Panacea, *&c.*

From my House in St. Ann's Court, *in* Dean-street, *near* So-ho-Square.

Novum Lumen

CHIRURGICUM.

HAving for a long time been much dissatisfyed with the common methods of Chirugeons, in the Cure of Recent Wounds; and almost every Day, observing the inconveniencies that attended those People who had occasion to make use of them; therefore for my own satisfaction, and Mankinds good, I took into Consideration, whether their Methods were agreeable to Reason, and the subject upon which they wrought.

At last I was fully satisfi'd, that their Practice was most unreasonable, which I shall endeavour to evince, with as much brevity and accuracy, as the unsettledness of my present condition will admit of: Which when I have done, I shall lay down my own Hypothesis; which I doubt not to confirm both by Reason and matter of fact; which is the most clear sort of demonstration. For the well performance of which task, I must first give a short account of Nutrition, without doing of which, my present undertaking, will be, altogether, maimed and imperfect.

To give an account of the Nutrition of Human bodies, or of other Animals, in so clear a manner as it ought to be done; I should first begin with the formation of the *Fœtus* and its Original constituent parts, with the manner of its Nutrition, and encrease before all the parts are perfect; and how after, till the time of Birth: The performance of which

task

task only, is ſufficient for a Volume. Therefore I ſhall content my ſelf with giving an account only, how what we Eat and Drink, is prepared in the Stomach and other Digeſtions, and ſo made fit to ſupply the defects of all the parts of our Bodies; which, thô the moſt hard, continually ſuffer both a decreaſe and increaſe, nay even, in the terms of Chirurgeons upon another occaſion, loſs of ſubſtance, and ſupply of that loſs.

The ſolid Food we Eat, being well chewed in the Mouth, is there mixed with a juice contain'd in the Glands, which are in great numbers diſperſed all over the Mouth, and parts adjacent; which juice, being what we call Spittle, is highly impregnated with a penetrating ſaline Spirit; a demonſtration of the Truth of which, is evident in a known and very common Experiment, which is as follows. Let a ſmall quantity of Mercury be put into a Mortar, ſpit

upon it, and grind it very well with a Peſtil, and the Mercury will preſently be (according to the Vulgar expreſſion) kill'd. The like to which, nothing we know of, will do, but thoſe things which manifeſtly are of a ſaline Nature.

The Meat, as above, being well chewed, and afterwards conveigh'd into the Stomach, and there diluted with a proper Vehicle, as Wine, Ale, *&c.* (The more generous the better.) is, by the means of the foreſaid Spirituous, ſaline liquor; (the heat of the Stomach likewiſe aſſiſting,) divided into ſuch minute particles, which conſtitute that viſid Liquor, we call Chyle; which Chyle is diſcharged out of the Stomach ſo faſt as it made, by means of the Liver which conſtantly preſſes upon it, through the *Pylorus*, into the *Inteſtinum Jejunum*, or Hungry-Gut, where, and in the *Duodenum*, it is further attenated by the intervention of the Pancreatick Juice and the Gall; which

which, by the fullneſs of the Stomach, are ſqueezed out of thoſe Veſſels that contain them into the aforeſaid Guts; from whence, the finer parts of which attenuated Liquor, are received into certain kind of Veſſels, we call *Lacteal*, or Milky-Veins, which are in vaſt numbers inſerted into the aforeſaid Guts; the groſſer part by the Peristaltick motion of the Guts, is carried downwards, to be caſt away as *Excrement*.

Now what is received into the Lacteal Veſſels, is carried on to the common receptacle of the Chyle, in the meſentery; from whence by a very large Veſſel called the *Thoracick Duct*, into the *Subclavian* Vein; thence together with the returning Blood and *Lympha* into the *Vena Cava*, and ſo to the right Ventricle of the Heart, whence by the *Syſtole* or contraction of the Heart, through the Arterial Vein, into the Lungs; where by the Contraction and Di-

lation of the Lungs, it is mixed with the Blood, and that part of it which is fit for that purpose, is there made Blood: The rest only remains confusedly mixed with it, and is that which is made use of for the Nutrition of the parts, being what we call *Serum*. The Blood, as I apprehend, not being at all made use off for the Nutrition of the parts, but is that Red substance, wherein is contained the *Biolicnium*, or Lamp of Life; it being to it a sort of *Pabulum*.

I confess some People say, that Heat and Fire proceed from nothing else but the parts of matter, being put into violent Motion; and others that there can be no such thing as a flame in our Blood, because a sufficient quantity of Air, cannot pass through the Coats of our Veins and Arteries, or any other way enter into the Blood, to keep that flame burning; so that the heat we feel in our Bodies, proceeds from nothing

else

elſe, but the violent Motion of the Blood through the Veins and Arteries. To which I anſwer, that having ſeveral times tryed, by the moſt violent Agitation of many fluid Bodies in incloſed Veſſels, I could never perceive the leaſt warmth, nay I have kept Blood as it came warm out of the Veins in continued violent Motion, and inſtead of hindering, it has facilitated its cooling.

But for that Fire which I judge to be in the Blood, I ſuppoſe it quite different from common Culinary Fire, and burns by quite different means, and hath a different *Pabulum*. For it is well known, that Blood by Diſtillation, affords but a very little of any ſuch ſubſtance, that will afford ſupply to common Fire; and yet from Blood, but more eſpecially from that Excrement of it, we call Urine, by a peculiar management, may be obtained, that ſubſtance we call the *Phoſporus*, which is as much Fire as any thing we know, it being

ſo

ſo inflamable, that unleſs it be immerged in Water, it preſently conſumes all away in Flame. There is an old Maxim, that *Nil dat, quod in ſe non habet.* Which is very pertinent to the point in hand, and from whence I inferr, that if there were not Fire in the Blood actually before, I cannot underſtand how this moſt Fiery ſubſtance can be obteined from it.

But there ſtill lies a mighty Objection in my way, which I ſhall endeavour to clear before I go on. The Objection is this, ſuppoſe the heat of the Body proceeds from this Fiery ſubſtance in the Blood, how comes it to paſs that in many caſes, as in Wounds, when matter is generating, *&c.* That the Motion of the Blood and heat of the Body, is greater than at other times, when that matter which enters into the Blood, and cauſeth this hurry and diſorder, hath no tendency to increaſe the flame?

To which I anſwer; that thô ſuch Particles entering into the Blood, may

may increaſe the Heat and Motion of it, yet it is not out of any Natural tendency, that they have *per ſe*, ſo to do; yet by accident they may do it, by cauſing an Inteſtine Motion or Fermentation, whereby the Cerment of the Blood being loosned, and its Texture much ſpoiled, this flame is then at liberty to burn more furiouſly. An inſtance of which may be ſeen in common Fire; for if the Combuſtible matter of which it is to be made, be laid cloſe together, it will ſcarce burn at all, but being laid at a little diſtance, it preſently burns briskly; and if it were not ſomething more then meer Motion a little excited, which is the cauſe of Feavers, I cannot underſtand how a very fat Perſon in a violent Feaver, ſhould in a very few Days be reduced to almoſt nothing but Skin and Bones, when the viſible Evacuations of Urine and Stool, are generally leſs then at other times; which frequently happens.

pens. Now it is well known, that no Liquors will ferment, but thoſe which manifeſtly abound with fiery Particles, as all ſorts of vinous Liquors and the ſtronger all ſuch Liquors the more readily they ferment.

The confuſed mixture of Blood and *Serum*, (I ſtick not to call it a confuſed one, by Reaſon, that with good Glaſſes, the Blood may be ſeen floating in the *Serum*, in the form of ſmall Globules) is carried back from the Lungs by the *Venal Artery*, into the left Ventricle of the Heart, and from thence protruded by means of the great Artery, which is immediately divided into a great many branches, to all parts of the Body, even the moſt minute. The Bones themſelves not being deſtitute of Arteries to bring this mixture to them for their Nutrition, and Veins to carry back what is ſuperfluous.

The manner of Nutrition, I conjecture to be as follows. The Arteries, which, as is before obſerved,

at

at their Origine are very large, are at last divided into an almost innumerable company of small branches, even so small, that the best Glasses will scarce discover them to us. At the extremities of these small Arteries, is that compound Liquor we call Blood, discharged upon, or into the *Muscular Fibers*, and not only the soft parts, but even the bones themselves are observed to be *Fibrous*; which *Fibers*, although they are never so small, are yet hollow. Now there are vast quantities of the small Particles which compose not only the Fluid, but also the most solid parts, continually discharged by insensible Transpiration. And *Sanctorius* that famous Roman Physician, in his nice Experiments observes, that we wast more every Day by insensible Transpiration, through the Pores, then by the visible sensible Evacuations of Urine and Stool. The waste which is made by insensible Transpiration, is repaired by the Homogeneous

geneous part of that Liquor contained in the Arteries, commonly called *Serum*; which *Serum* is adapted or made fit by the Pores of the parts it is brought to, to be applyed to such places, where there is any waste. But how the parts of matter are modfiedi and adapted, so as to constitute a body, I think, it would be arrogance in me to pretend to define; but that Bodies of very different Natures, may, and do receive Nutrition and increase from one and the same substance, which in it self seems to be simple and Homogene, the following Experiments, (the one a common one and known to every body, the other two, made by two of the greatest Men these last Ages have afforded, (*viz.*) *Hecmont*, and *Boyle*,) will, I suppose, clearly demonstrate.

Let a Crab-Tree stock, which hath six branches, have into each branch a graft set, each graft of a different

different nature, as for instance; let three of the grafts be of Pears, each of a different sort; and the other three of Apples, some sweet, some sour, and yet the juice which is brought up into the stock, which had the top been left on, would only have produced Crabs; this juice being brought into the grafts, is by their Pores so altered, that it affords not only Nutrition and increase to the grafts, but enables them to bring forth Fruit, each according to his kind; which sight I have, not without great delight, seen.

The second Experiment was one made by that great enquirer into Natures secrets, *Helmont*, which is as follows. He took Two Hundred pound of Earth, dryed in an Oven, and having put it into an Earthen Vessel, and moysten'd it with Water, he Planted in it the branch of a Willow-tree of Five Pound weight; this he watered as need required, with

with Rain or with distilled Water; and to keep the Neighbouring Earth from getting into the Vessel, he ployed a plate of Iron tinn'd over, and perforated with many holes. Five Years being effluxed, he took out the Tree and weigh'd it, (which computing the leaves that fell Four Autumnes,) he found to weigh One Hundred Sixty Nine Pounds, and about Three Ounces: And having again dryed the Earth it grew in, he found it wanted of its former weight of Two Hundred Pound, only about a couple of Ounces; so that One Hundred Sixty Four Pound of the Roots, Wood, and Bark, which constituted the Tree, seem to have sprung from the Water only.

The third Experiment being Mr. *Boyl's*, was this. He ordered his Gardner to dig out a convenient quantity of good Earth, and drye it well in an Oven, to weigh it, and then to put it into an Earthen Pot, almost

almoſt level with the ſurface of the Ground, and to ſet on it a ſelect Seed of Squaſh, which is a kind of Indian Pompion, that grows apace; this Seed he ordered him to Water, only with Rain or Spring-water. The Plant flouriſhed and grew apace, and although it were ſown too late in the Year by two Months, yet being gathered at the proper Seaſon, the Pompion, Stalks, and Leaves, weighed Three Pound wanting a Quarter; then he took the Earth and dryed it nicely, and found it weigh exactly as much as before.

As a Confirmation of the Truth of the two laſt Experiments, every body knows, that Mint, and ſuch like Plants, being ſet in a bottle of Water, flouriſh as much, or more, then thoſe planted in the Earth. Now theſe Vegetables, although they receive their Nutrition and increaſe from ſo ſimple and Homogene a ſubſtance as Water is; yet by a Chymical

mical Analysis; there may be obtained from them such substances, which are not easily to be mixed with Water, and seem to be of an altogether different Nature from Water; nay the very same substances, for the most part, may be obtained from Vegetables, as from Animals, if they are rightly managed. For thô Volatile urinous Spirits, are generally owned to be the product of Animal substances only, yet I very well know, that from almost all sorts of Vegetables, without any Addition, may be obtained a Spirit and Volatile Salt, no way differing from that of Harts-horn, and Human Blood. From all which I gather, that if the great variety of Vegetables, which are of such different Natures, have their Nutrition and increase from so simple a body only, as Water is; I know no Reason we have to doubt, but that all the parts of a Humane body or other Animals, may have their Nutrition and increase from the

Serum

Serum of the Blood, which is Analagous to Water.

When there is, by any accident, a Diviſion made in the Fibrous parts of the Body, which is what we call a Wound, (and by the way, I think there is no difference, only *Secundum majus & minus*, between thoſe waſtes, made by Tranſpiration, which are Natural, and a Wound made by force, which is preternatural,) Nature her ſelf would in a ſmall time make an Union, if ſhe were not hindered, but aſſiſted. Now I ſhall endeavour to make appear, that by the common Methods and Medicines of Chirurgeons, ſhe is hindered, and by my Methods and Medicines ſhe is aſſiſted; which is all, not only in this caſe, but in all others, where Nature is oppreſſed, that is required of Phyſitians or Chirurgeons, who are, or at leaſt ought to be, Miniſters of Nature, and not her Oppreſſors.

For to ſhew wherein lies the unreaſonableneſs of the common Me-

thods of Chirurgeons, in the Cure of Wounds, and wherein they hinder and oppreſs Nature, in her moſt regular Operations: Suppoſe a Wound be made, and its no matter where it is, for what will Cure a Wound in one p'ace, will do it in another; the matter which is brought for the Nutrition and ſupply of a.l the parts being the ſame. The two Experiments before mentioned, being ſufficient to confirm, that what will afford Nutrition and increaſe, to a Muſcular, fleſhy part, may do the ſame to a Bone; for the Pompion is a ſoft ſubſtance like unto Muſcular fleſh, and the Willow, a hard brittle ſubſtance, Analagous to that of Bones, and yet both had their Nutrition and increaſe from Water only.

Now let a Wound be made where it will, and how its made, matters not, whether it be by cutting or Contuſion, only this difference there is, between thoſe Wounds called inciſed ones, and thoſe called Contuſ-

ed

ed ones, (thô by the way, I think, I may ſafely affirm, that there is no Wound made by inciſion, but may as properly be called a contuſed one, let the inſtrument be never ſo keen, with which it is made, as a Wound made with a Bullet, but not in altogether ſo eminent a manner; the difference being only *Secundùm majus & minus,*) That there is a larger ſpace between the Lips of the one, then that of the other; and ſo by conſequence, Nature is at more charge and trouble, and requires longer time for the making an Union of the one, than of the other. For although in both, there requires the Generation of freſh ſubſtance; yet in Gun-ſhot Wounds, there is a greater quantity to be generated, than in inciſed ones, the Lips of the Wound being further aſunder, and ſo by conſequence, the more work there is to be done, the longer time Nature requires for the doing of it.

Let a diviſion be made in any of the parts of the body, which as is before obſerved, is what we call a Wound, (how it is made, matter not, whether it be by cutting or Contuſion;) the Nutritious juice is immediately brought to the extremities of the Wounded Veſſels, all over the Wound. Now I ſtick not to call the ſmalleſt Fiber or Fibril a Veſſel; for if they were deſtitute of Cavities, they could never be nouriſhed, much leſs admit of increaſe. Now all the Medicines made uſe of, in the common Methods of Chirurgery, are of that Nature, that they ſo greatly relax the divided Fibers, that they cannot contain the Nutritious matter brought to them, but let it paſs into the Wound, where it is by the ſame Medicines corrupted, and turn'd into that ſubſtance, we commonly call Matter. Now the Corruption of the Nutritious juice, cannot be performed without a ſort of Fermentation, and it is the

the Fermenting Particles, that fretting the Fibers, cauſe inflamations in Wounds, and by entering into the Blood, and dividing of its Texture, cauſe Symptomatick Feavers, which frequently prove ſo fatal. As a confirmation of the Truth of which, I muſt appeal to the experience of all Mankind who have ever been Wounded, (and there is ſcarce one amongſt a Thouſand, but hath received ſome ſort of Wound or other,) whether they have not felt pain, and had ſomething of a Fever, more or leſs, according to the largeneſs of the Wound, during the time that Matter was generating. Now it is evident, that whatever will cauſe ſuch ſort of pain, and that will create a Feaver, muſt be of a Heterogeneous Nature, and an Enemy to that body, (for I poſitively believe, that it is from the Medicines that are applyed only, that are the occaſion of all thoſe ill Symptoms, that frequently attend Wounds,) to which

it is applyed, or into which it is received. The Truth of which, even the nature of a Feaver, is a sufficient confirmation for a Feaver in the terms of many great Men, is nothing else but a *Nixus Naturæ* or a contention of Nature, to throw off its Enemy; others call a Feaver *Sanguipurgus*, or a Purifyer of the Blood, which is the same with the former, only in different words. And a late learned Authior in his Treatise of Intermitting Feavers, the one only rational piece, in my Opinion, that ever was writ upon that subject, plainly makes it appear, that the seat of Agues, is in the Cortex of the Brain, from whence, at certain periods of time, the matter is thrown off by the mediation of the Nerves, to all the parts of the Body, which causeth that Coldness, Rigor, and Horror, that is perceived at the beginning of a Fit; this matter being afterwards received into the Blood, by the Capillary Veins, which are every where dispersed, and being of a Heterogeneous

genuous Nature to the Blood, puts it into a violent Motion and Agitation, in order to throw it off, which irregular Motion, never ceases, till all the matter causing it, is thrown out, by the external Cuticular pores. I could use many more Arguments to prove, that not only Symptomatick Feavers, but even all sorts of continued ones, do proceed from Heterogeneous Particles, being admitted into the Blood, which for brevities sake, I shall omit.

Now, after they have with so much hazard and trouble, generated Matter, (thô many times, instead of generating Matter, their suppurating Medicines cause Mortifications in the parts, especially, if there be an ill habit of Body before hand; the bad consequences of which, every bodys knows, but more especially, to their sorrows, those who have experienced it themselves) they then use Mundifying Medicines, and when Nature is almost tyred, and oppressed,

oppreſſed, weak as ſhe is, they leave her to do her own work; for, for my part, I don't at all ſee or underſtand, that ſhe is in the leaſt aſſiſted, by the Medicines they afterwards uſe.

But what I have been hitherto ſpeaking of, in relation to their Medicines and Practice, has only relation to external Fleſh-Wounds; and if that hazard attends the Cure of thoſe Wounds, what is to be expected in Wounds within the Cavity of the Body, where the Lungs, Liver, Guts, *&c.* chance to be wounded. In ſuch caſes, their Medicines are, by themſelves, owned to be inſufficient; and if at any time it chances, that any of the forementioned parts are wounded, and the party chances to recover, themſelves account the recovery almoſt miraculous, by Reaſon that ſuch Wounds, by the general vogue of the greateſt Chirurgeons, are accounted Mortal, and that not without Reaſon. For to bring

bring a Wound in the Lungs, Liver, Guts, &c, to ſupparation, is to bring certain Death; and to Cure a Wound without bringing it to ſuppuration, they don't pretend to. So that if any of the forementioned Wounds are Cured by them, it is to be attributed to ſome ſtrange and ſecret Operation of Nature; unknown to every body, and not to their skil; for he is only accounted skilful in the Cure of any Malady, the greateſt number of whoſe Patients recover, but thoſe who have not one in ten of their Patients which don't miſcarry, are not to be accounted ſo; and I verily believe, that not one in in ten of thoſe who have been wounded in the Cavity of the Body, and have been managed after the common Methods of Chirurgeons, have recovered; ſo I leave it to every Man's judgment, which Method is moſt to be confided in, either that where ſcarce one in ten miſcarry, as in mine, or the other, where not one

in ten recovers, as in the common Methods of the Chirurgeons.

Beſides the inconveniencies and inſufficiencies of their Methods and Medicines already mentioned, there ſtill remains another, as great as any, and that is, when any large Blood Veſſel is wounded, how to ſtop the Flux of Blood; which is not to be performed by them, without either actual or potential Cauteryes, the inconveniencies of which, almoſt every body knows; nay Cauteryes, themſelves are not to be truſted, without very ſtrict bandage, which always, or for the moſt part, cauſeth Mortifications, the neceſſary conſequences of which, is loſs of Limbs or Life, many times both, as I my ſelf with great regret have ſeen.

In all Wounds, thô but Fleſh ones of any conſequence, they confine their Patients to the loweſt Dyet imaginable, forbidding them the Eating of Fleſh, or Drinking of Wine, and although there have been great loſs

of

of Blood, before at the Wound, yet they ſeldom or never fail, to the great weakening of their Patients, to let Blood in great quantities, which they often repeat, to prevent the increaſe, and taking off the Feaver, which always, more or leſs, attends them; which in ſpight of all they can do, frequently proves of fatal conſequence.

I have not mentioned their Tenting Probing, and other nonſenſical trumpery, which is ſtill uſed by moſt Chirurgeons, to the great detriment of their Patients; by Reaſon that many judicious Chirurgeons in all places, begin to leave it off, who, I queſtion not, will be glad to change their old unſucceſsful way of Practice altogether, when once they can be informed, of a better and more certain Method.

To give an account of the Methods I uſe in the Cure of Wounds, will not take up much room; by Reaſon they are ſhort and eaſy, and not round

round about, as the common Methods are. However, that I may do it ſomwhat clearly, I ſhall begin with inciſed Wounds, ſo called, and next of all, proceed to give an account of contuſed ones, made with ſhot or the like. Firſt, where only the Muſcular, fleſhy parts are Wounded, and Secondly, where the Bones are broken and ſhattered to pieces, and the Tendons torn, which laſt ſort of Wounds, I have not in the leaſt touched upon, in my account of the unreaſonableneſs of the Methods commonly uſed by Chirurgeons, in the Cure of Wounds; for if there be ſuch hazard and trouble in the Cure of inciſed Wounds, all People will allow, that it muſt be ſo in a much more eminent degree, in ſuch Wounds as theſe,

Suppoſe a Wound be made a Sword or other cutting inſtrument, the length or depth of which, ſignifies nothing, I make a ſolution of my Powder in Water, for want of which in Urine,

Urine, and as ſoon as with convenicy I can, the ſooner after the Wound is made the better, I either ſqueeze, or with a ſyringe, if the Wound be deep, inject into the Wound ſome of the ſaid ſolution, I then cloſe the Lips of the Wound together, which if wide and large, I ſtich up. When I have ſo done, I apply a pledget of fine Tow, wet in the ſaid ſolution, to the Wound, not letting it go into the Wound, but only juſt to cover the edges of it, and lye all over it. And if there chance to be any large Artery cut, I hold on the pledget cloſe with my Hand, till the Flux of Blood ceaſeth, which will be in a ſmall time, otherwiſe not; afterwards I bind it on with a very eaſy Ligature, then I give my tincture in Wine, and repeat it according to the directions at the latter end of the Book.

Now to prove that my Medicines are agreeable to the Nature of Human bodies, and of that juice, by which I conjecture, (for to be ſure

I cannot) the Body is nouriſhed, and more efficacious then the Medicines uſed by Chirurgeons, the following arguments will, I ſuppoſe, evince. They not being the effects of fancy, but of moſt certain, and reiterated Experiments.

Firſt of all, my Medicines never cauſe any pain, unleſs it be juſt at the time when the External Medicine is ſqueezed or injected into the Wound, and that pain very little more than what would be cauſed by the uſing of Spring-Water, in the ſame manner.

Secondly, There is no ſuch thing as pain afterwards, but the parts pliant and eaſy, as if not hurt at all.

Thirdly, if there has been great pain before, according as it hath been either greater or leſs, ſo it hath been longer or a ſhorter time before it hath been taken of, but the greateſt in a ſhort time. As when a Wound had been long received, and had had other applications to it before mine,

mine, the Wound much inflamed, and the parts adjacent much ſwelled, and ſo by conſequence, the party in great pain; theſe Symtoms altogether have been totally taken off, in Twenty four, or Forty eight Hours at fartheſt, and many times in ſuch caſes, the greateſt pain taken off in a few Minutes. But they never have been the cauſe of pain, ſwelling, or inflamation, which by the way is a certain argument, they are no Cauſticks, as ſome Men malitiouſly and falſly report.

Fourthly, there has never any ſuch thing as a Feaver, let the Wound be either internal or external, attended any of thoſe People, who have made uſe of my Medicines, ſoon after they have been Wounded; but ſeveral People who have have been ill managed before, and have been thrown into violent Feavers, have in Twenty four Hours, by the uſe of my Medicines, been totally freed from them, and that without

Blood

Blood letting, or abſtaining from the Eating of Fleſh, or Drinking of Wine; the more of which they Drink, ſo that they keep within the bounds of Moderation, I always find them the better.

Fifthly, in all inciſed Wounds, where my Medicines have been timely enough uſed, and no other application preceeded, they are perfectly Cured in a few Days, without bringing them to ſupparation; and I have frequently obſerved, that at about four Days end, ſuch Wounds have been filled with a ſubſtance, much like unto Harts-horn Gelly, which I have conjectured to be young Fleſh, and in two or three Days, I have found my conjectures true; the ſaid ſubſtance being converted into good Fleſh. But where Wounds have been long received, and Matter generated; ſuch Wounds have been Cured in a ſmall time, without repeating the application above once in four Days. Some of thoſe Wounds

that

that had been long received, I have had to do with, which have been both deep and large, and by the common Methods, muſt have diſcharged a great quantity of Matter; but the quantity of Matter that has come away, after my Medicines have been uſed, hath been ſo ſmall, that I have good Reaſon to conjecture, that it has been no more, then what had been formed before my Medicines were applyed.

As for Gun-ſhot Wounds in any of the Fleſhy parts, they are Cured after the ſame manner, with the former, and without the leaſt ill Symtom, only this difference, that whereas in inciſed Wounds, if my Medicines are applyed as ſoon, or preſently after the Wound is received, there is little or nothing comes away from them; but in Gun-ſhot Wounds, the Glands and Lymphetick Veſſels being broke and torn to pieces, there is for ſome time a conſiderable quantity of the watry Matter con-

tained in those Vessels, discharged out of the Wound, and the loss of substance being great, they require a longer time before they are cured.

But some may object, How is it possible for you without bringing your Wound to suppuration, to cause a discharge of extraneous Bodies, as pieces of Cloaths, splinters of Bones, &c. which for the most part, are lodged in Gun-shot Wounds?

To which I answer; that the foresaid watry Liquor being continually discharged out of such wounds, and the parts adjacent not being swell'd, as they never are, so as to close up the Orifice of the Wounds: by the means of the said Liquor, they are brought away without any hazard or trouble, and for the most part without any pain at all. And as for that slough which some People make so great a noise about, it is also, by the means of the said Liquor, brought away without any digestion,

gestion; the slough as they call it, being nothing else but a complication of torn and broken Fibers, lodged about the sides of the Wound. As for broken Bones, they being put into their right posture, the Nutritious juice which is brought to them, fills up the void spaces, and by the Texture of its parts, in a little time, grows hard as any other part of the Bone. What has been said of Bones and Flesh, may also be said of Tendons, the wounding of which was heretofore accounted so fatal, that nothing was accounted more, they being of a Muellaginous Nature, digestive Medicines were wont to rot and destroy them, and so cause Mortifications,) so that their ends, if totally divided, can be brought any thing near together, which if it be not possibly to be done, which for the most part is, there is no other ill consequence, but the loosing the use of that part to which it belongs.

From what has been ſaid, I think, I may rationally infer, that my Medicines are agreeable to Nature, and aſſiſt her in her regular Operations. And on the contrary, that the common Medicines of Chirurgeons, are diſagreeable to Nature, and hinder her in her Operations.

As for inſtance. Two Officers of the Regiment of Fuſileers, that were Wounded, were in the ſame Tent together, the one a Man of good Habit of Body, had received a ſlight Wound in the Arm, his Wound had been received three Weeks, and was managed according to the common Methods, his Arm was much ſwell'd, greatly inflam'd, and he in great pain, and not like to be well in a long time. The other a Perſon of a very ill Habit of Body, had a Sword Run through the moſt fleſhy part of his Thigh, the Orifices on each ſide, Three Inches long, and yet he, being managed according to my Methods, in a little above a

Weeks

Weeks time, was perfectly well, and never felt any pain from the beginning.

Their Medicines corrupt the Nutritious juice, and turn it into Matter.

My Medicines being of a friendly Nature to the Nutritious juice, prevent it from degenerating or corrupting, which by so doing, that juice is capable of performing the work that Nature designed it for; which is to fill up all vacuities either naturally or forcibly made, which is performed in the manner following. The Nutritious juice, being by the Arteries, brought to the parts, the Particles of it, are by the Pores of the parts so modified, as to form a Body like unto that, whose Pores it passed through; from whence it is not difficult to imagine, how very large spaces forcibly made, may be again filled up with fresh substance, like unto what was there before that space was made.

Their Medicines cauſe inflamati-ons and ſwelling, and conſequently pain, in and about Wounds. Mine not ſo.

Their Medicines either perſe, or by accident, ſeldom or never fail to cauſe Symptomatick Feavers.

Mine not ſo; but on the contrary either prevent them, or take them off when already fixed, and that without ſtarving and deſtroying Nature, for want of neceſſary Aliment.

By their Methods and Medicines they can't ſtop Fluxes of Blood, without moſt diſmal conſequences.

My Medicines ſtop Fluxes of Blood with eaſe, and without hazard, and at the ſame time Cure the Wounds.

For confirmation of what I have ſaid, I refer you to the following Experiments, the Truth of which is no difficult matter to be informed of.

To conclude all; I would not have any one ſo to underſtand me, as to believe, that I poſitively aſſert, that

that I can Cure all sorts of Wounds, and that no one shall miscarry under my Hands; for whoever does so, is greatly mistaken. For I must own, that there may be some very few unlucky Wounds within the Cavity of the Body, that may elude the efficacy of my Medicines; yet most Wounds within the Cavity, may be cured with all the ease imaginable. But for External Wounds, let them be what they will, I think, few or none of them, so that People will be regular, but may be cured, without hazard or inconveniency.

Experiment

Experiment I.

John Mahulton, an Iriſh Man, in the Regiment of Colonel *Brewer*, in the Company of Captain *Puryſye*, was in a rencounter run through the left Arm, and into the left Breaſt, between the Second and Third Rib, upon which he immediatly fell down as Dead. He ſays, that he found the Sword paſs into the very inmoſt part of his Breaſt. Immediatly, upon the receipt of the Wound, he had a great difficulty in breathing, and weight upon his Diaphragme, likewiſe a great quantity of ſpumous Blood, and Air guſhed out at the Wound in his Breaſt; which ſymtoms, I ſuppoſe, are a clear demonſtration, that his Lungs were Wounded. Mr. *Chombly* Chirurgeon to the Regiment, immediatly applyed my

External

External Medicine which ſtopped the Flux of Blood at both parts, which at the Wound in his Arm, was alſo very great. But he did not give the internal one, as he ought to have done, that Night; ſo his ſhortneſs of Breath and weight upon his Diaphragme continued: But the Morning giving it him, he was immediatly freed from thoſe ſymtoms, and that day marched, on Foot, ſix Miles, with the Army, and was never in the leaſt out of order, or had any thing of pain after, neither did he at all confine himſelf to his Tent.

Experiment

Experiment II.

ONE *Paterſon*, a Scotchman, in the Regiment of the Honourable the Lord *George Hamilton*, was, about Eight a Clock one Evening, run into the Belly, about two Inces above the Navel, on the right ſide; the Sword, as himſelf and ſeveral other ſpectators ſay, entered at leaſt Seven or Eight Inches, and being a very broad one, could not fail of doing a great deal of miſchief. I may conjecture, for to be poſitive no Man can, that the Sword paſſed through the Liver, and the ſymtoms that attended him, do, I believe, plainly demonſtrate, that the Inteſtines were alſo Wounded. By his Lordſhips Command I was ſent for to take care of him, but not being at home, Mr. *Chombly* went to him, and

nd in his Lordships presence, applyed the External Medicine, and gave him the Internal one in a large draught of Wine as usual. After he had taken care of him, he immediatly applyed himself to find me, to give me an account of our Patients condition; but his account was so scurvy alone, that I was sorry he had medled with him, which had I been there, I should not have done, by Reason that my whole reputation lay at stake; for it was but Two Days before, that His Majesty had been Graciously pleased to appoint it to be given out in publick Orders throughout the Camp, that Notice should be given to my most worthy Friend, Major General *Bellasis*, of the first Man that was Wounded, that he might see whether I were capable of performing what I pretended to. Now the symtoms that attended this Man, were violent Vomitings, and an intoleradle soreness and pain about his Belly, and in his

Bowels,

Bowels, and for that Night, had no rest at all. In the Morning when the General saw him, his circumstances were little or nothing better; but towards the Evening, he began to rest, and before next Morning, his ill symtoms totally vanished. For Two Days he had no stool, but when he had one, it was scarce any thing else but Coagulated Blood. On the Fourth Day after he was Wounded, he was able to go with me to Court, where the General and several other Officers saw him, very well. Besides the forementioned Wound, he was also Wounded in two other places, and much bruised, of all which, he was perfectly recovered.

Experiment

Experiment III.

MR. *Lane*, a Voluntier, in the Regiment of Sr. *Bevill Greenvill*, was in a rencounter, Run into the left Pap: The Sword by all accounts, entered a great way into the Cavity of the Breast. The Chirurgeon of the said Regiment, was by the Order of Sir *Bevill*, sent to take care of him, who presently returned and told Sir *Bevill*, that he was a Dead Man and all the World could not save him; for that he had no sooner thrust his Probe into the Wound, but that it was beaten back again by the Pulsation of his Heart; he likewise told the same to Mr. *Willy*, Chirurgeon, to the Regiment of Colonel *Selwin*, and to several others; but withal, in a ridiculing manner, he said, that they might send for their

their famous Doctor, meaning me, and if he could cure him, he would then Fight Duels every Day, I was sent for, but being ill, could not go; so I sent Mr. *Chombly*, who notwithstanding his ill circumstances, and being animated by what he had before seen, was not afraid to take him into his Care; Tho the symtoms that attended him were as bad as bad could be, and he alive. He had great Convulsions, shortness of Breath, a great load upon his Diaphragme, and a great quantity of spumous Blood gushed out at the Orifice of his Wound, together with such a blast of Air, that it was almost equal to that of an ordinary pair of bellows; he applyed the External Medicine, and gave him the Internal one, which immediatly gave him some relief; but for Forty Eight Hours, my Friend Mr. *Hamstead* was forced to keep a Guard upon him for fear the Chirurgeons should do him a mischief, they having before attempted

tempted to play me some slippery tricks. At the end of which time, Mr. *Lane* sent me word, that he could lie upon the Wounded part, without the least pain; and that my Friend need not give himself any more trouble, he being as well as ever in his Life, only weak with the great loss of Blood; accordingly my Friend left him. But on the Morrow in the Evening there came to him between Twenty and Thirty Chirurgeons, who by violence (I suppose having before made him Drunk) pulled off the dressings from his Wound, with no other design, that I can imagine, than to murther him, by Reason, that they applyed nothing else in its room, but left the Wound bare; in which posture it continued all Night. My People going next Morning to visit him, he told them the story, and withal said, that every thing was well, his Wound being so farr healed before, that their pulling of the dressings did him

no

no harm; however, my People made another application, which, to the beſt of my remembrance, was the Second and laſt that was made. But from the beginning, he took the Tincture once in Five or Six Hours, in a large draught of Wine. I have ſince ſeen him on the long march, walking on Foot, when he told me, that he was as well as ever in his Life. This Man had as ill an habit of Body, as it was poſſible for a Man to have.

Experiment

Experiment IV.

MR. *Fletcher*, a Lieutenant in Colonel *Fits Patricks* Regiment of Fuſileers, was in a rencounter run through the moſt fleſhy part of his right Thigh; after the Sword was in up to the Hilt, him and his Antagoniſt cloſed, and down they fell upon the Ground, where they continued ſtrugling for a conſiderable time, the Sword being ſtill in Mr. *Fletcher's* Thigh: but company coming in, they parted them, and pulled out the Sword, and ſent for Mr. *Chomley* to take care of him; who when he came, found the Orifices on each ſide, at leaſt, three Inches long, and very wide, from which proceeded a very great Flux of Blood. He firſt ſqueezed ſome of the ſolution of my Powder into the Wound,

then ſtiched it up, and applyed ſome Pledgets of Tow wet in the ſaid ſolution, to both Orifices; afterwards he gave him the Tincture in a glaſs of Wine, which was repeated once in 5 or 6 Hours, for Three Days. In one Weeks time he was able to walk abroad; he publickly declared, that from the firſt time my Medicines were applyed, he felt no more pain in or about the Wound, than if he had never been hurt at all.

Experiment

Experiment. V.

MR. *Poole*, a private Gentleman in the Honourable Brigadier *Lamley*'s Regiment, in the Troop of Captain *Billingſly*, was, near His Majeſty's Quarters at *Roſebeck*, with a Sword, run into the Stomach; he had immediatly a very great Flux of Blood, both at the Wound and at his Mouth, but that at his Mouth was, by much, the greateſt. Several of the Servants belonging to His Majeſty, who ſaw him bleeding, do poſitively declare, that according to the moſt modeſt computation, he at both places, loſt two Field meaſures, which is Four Engliſh Quarts of Blood, before my People came to him. He was Convulſive to ſuch a degree, that all who ſaw him, thought it impoſſible for him

to live an Hour; but my Medicines being uſed according to the uſual Method, the Flux of Blood immediately ſtopped, and he, as almoſt all my Patients have done, declared, that within a minute or two after he had taken the Tincture, he found himſelf refreſhed and revived beyond expreſſion, and preſently his Convulſions left him, and that Night he ſlept very well. On the Morrow, a rumor, by whom raiſed I know not, was ſpread about the Court, that he was Dead; but my Friend Mr. *Sell* a Page of the back-ſtairs to His Majeſty, going to the Tent where he lay, to enquire into the truth of the report, inſtead of finding him Dead, ſaw him heartily knawing of tough ill boyled Mutton, the which he forbade him to do; ſo he left off, but withal ſaid, *Sir, if I muſt not Eat, I'll Drink to you,* ſo he took up a quart Pot of ſtrong Mecklin's Beer, and drank it off. About three Days after, the Army marched from *Roſe-*

beck

beck to Mount *St. Andrew*, and he in a Waggon to *Tirlemont*. But on the morrow, there being a Rumor that the Army was to Engage, he came from *Tirlemont* to the Camp. His Captain asked him, what he did there, He anſwered, *That he came to Fight*; replyed the Captain, *Sure you have enough of Fighting already*; *no*, (ſays he) *I fear not Fighting now, and although I was ſo lately Wounded, and loſt ſo much Blood, I am as able to Fight as any Man in the Regiment*. This diſcourſe between his Captain and him, he told me of, on *Sunday* Morning, which was but five Days after he was Wounded. About eight Days after he was Wounded, he was ſeen by His Majeſty and ſeveral great Officers, he being then very well, and ſo continued till I left the Camp.

Experiment VI.

A Private Soldier, in the Regiment of Colonel *Collingwood*, had with a broad Sword, his *Sternum* or Breaſt-bone divided, the Sword likewiſe paſſed on, into the body of his Lungs. From the Wound ruſhed forth ſuch a vaſt quantity of Blood and Air together, that Mr. *Chomely* declared, that he could ſcarce with his Hand, keep on a dreſſing; ſo to bring the Lips of the Wound together, with a Needle and Thread he ſowed up the Wound; but the force of Air was ſo great, the Flux of Blood being before ſtopped by my Medicines, that he was forced to make his ſtitches in the External part of the Bone, which is griſtly, by Reaſon that the skin was not ſtrong enough to hold them. The Man

was

was for that Night attended with moſt dangerous ſymtoms, but on the Morrow, he continuing to take the Tincture, they left him. He continued in the Camp three Days very well, only weak with the great loſs of Blood. The Army being to march, his weakneſs was ſuch, that he could not walk far on foot; ſo contrary to my knowledge, he was ſent to the Hoſpital, but wanted no other aſſiſtance there, than to recover his ſtrength. He ſtaid there ſome ſmall time, but is ſince returned to the Camp, very vigorous and well.

Experiment

Experiment VII.

A Private Soldier, in the Regiment of Sir *James Lesley*, was also Wounded in the Lungs, and Sir *James* himself told me, that he was by several Chirurgeons given over for Dead. His Wound had been a Fortnight or more received, and was in a very ill condition; he had a great quantity of Blood discharged into the Cavity of his Breast, which lying there for so long a time, was degenerated into the most stinking sort of Pus or Matter; he had likewise a most violent Feaver. Yet notwithstanding his condition was such, by the repeated use of my Tincture. he was in Twenty four Hours, freed from his Feaver, and had

had all the corrupted Matter thrown out of his Breaſt, and his Wound with twice applying my External Medicine, in a Week's time, was well.

Experiment

Experiment VIII.

MR. *Wright*, a Quarter-maſter, in the Regiment of Co onel *Langſton*, was with a Sword run in juſt below the right Arm Pitt, the Sword paſſed in through the middle of the Lungs about ten Inches. He had immediately a great Flux of Blood, both at the Wound and at his Mouth, with a great ſhortneſs of Breath, and violent Convulſions. Lieutenant Colonel *Morton* being at Hand, and having ſome of my Medicines by him, ſent his Man for them, which when he had brought, he gave him directions how to apply the External and to give the Internal one. The Colonel told me afterwards, that he never before ſaw ſo ſuddain and ſo great an alteration in any one in his whole Life; for that

hat juſt before he took the Tincture, he had ſuch violent Convulſions and ſuch a ſhortneſs of Breath, that himſelf and all that ſaw him, thought him near expiring; but in a few minutes after he had taken it, thoſe ſymtoms totally left him. But the Poor Gentlemen fearing, that ſome thing might be omitted, he ſent for me, but I being at that time otherwiſe buſy, ſent Mr. *Chombly* and Mr. *Hamſtead* to him, who found that every thing was well. But for ſecurity ſake, Mr. *Hamſtead* ſtayed that Night with him, and in the Morning he brought me word, that for the firſt part of the Nighr he was ſomewhat reſtleſs, but about two a Clock he began to ſleep, and continued ſleeping till he came away. That Day I went to viſit him and found him in a very good condition, free from a Feaver, or any diſorder in or about his Wound, only ſpit Blood a little, which, I ſuppoſe, was occaſioned by a Cough he had had

upon

upon him for Seven Years before, which violent, beſides the ordinary motion of his Lungs, muſt neceſſarily much impede, the healing of them when Wounded: Notwithſtanding which, in Four or Five Days he was able to walk abroad, being very well, only weak with the great loſs of Blood. Six Weeks ſince he was Wounded, I frequently ſaw him at *Ghent*, when he told me, he was as well as he had been for ſeveral Years before.

Experiment

Experiment IX.

A Soldier, in the Regiment of the Honourable the Lord *George Hamilton*, being out a Foraging, was with a Bullet or rather two, ſhot through the back part of his Hand, the Bones of the *Meta Carpus* were all ſhattered to pieces, and the Tendons much torn, which we could plainly ſee, the Wound being ſo very wide. The Wound was firſt dreſſed by Mr. *Willy* Chirurgeon to the Regiment of Colonel *Selwin*, being received about Ten a Clock in the Morning. I being that Afternoon at His Majeſty's Quarters, and ſeeing my Lord, he told me of the accident, and withal deſired me to take care of the Man: Accordingly, about Nine a Clock in the Evening, I went to his Tent and there ſent for

Mr

Mr. *Willy* to me; who when he came told me, that the Mans Hand, by the common Methods, could not be ſaved, but if I could do it, he would then ſtand my friend againſt all my oppoſers: So I requeſted him to pull off his dreſſings, which were only Pledgets of dry Tow, which when he had done, Mr. *Chombly* applyed my External Medicine, and gave him the Tincture in a large draught of Old-hock. His Hand and Arm were much ſwelled and inflamed, and he in almoſt intolerable pain. On the Morrow I went again to ſee him, and found both ſwelling and inflamation gone, and he at eaſe. About Four Days after Mr. *Chombly* opened the Wound again, to make a freſh dreſſing, which we found in a very good condition, and not in the leaſt digeſted or brought to ſuppuration, but a thin, ſerous Matter, a little tinged with redneſs, which, I ſuppoſe to be diſcharged out of the Glands and lympharick Veſſels, came away, which

which when it had lain ſome time upon the dreſſings, was ſubject to ſtink, but that which came freſh out of the Wound was as ſweet as a Roſe: This ſubſtance was quite different from what we call Gleet. The next time it was dreſſed, it looked better than before, and he could begin a little to ſtir his Fingers; at this dreſſing, (his Comrade next to be mentioned, being alſo then dreſſed,) a great many Gentlemen and Chirurgeons, out of curioſity, were by, who all declared, they never ſaw any Wounds look ſo well in their lives, and then this Man could ſtir all his Fingers. Within a few Days the Army began to march, and he marched every Day of the long march on Foot, unleſs it were the firſt day, when I got leave for him and his Comrade in affliction, to ride Three or Four Miles, Before we came to the end of the long march, he told me. that he could lay the Wounded Hand upon the back

back of a Horſe of fifteen hands high, and without any other aſſiſtance leap up upon his back. He had at ſeveral times, at leaſt, Fifty ſmall pieces of Bones came away, and after they were all diſcharged, his Hand was ſuddenly well.

Experiment

Experiment X.

ANother Soldier of the ſame Regiment, was at the ſame time with the forementioned Perſon, Wounded in three places of his Body. He had two Bullets at about an Inch and a half diſtance, entered about the middle of his Back, on the Right-ſide, and were cut out by Mr. *Willy* about ſeven Inches from their Orifices on the ſame ſide. Another Bullet entered a little below on the ſame ſide, and was cut out juſt above the Navel, being about nine Inches from its firſt entrance; thô the other two had not, grazing upon the Ribs, yet I have great Reaſon to believe, that this did penetrate the Cavity of the Body. This Man we found in moſt intolerable Miſery, having a violent Fea-

ver upon him, and the laſt mentioned Wound, in all appearance, began to mortify, both Orifices looking very black, and a very ill ſmell came from them. Mr. *Chomley* applyed my External Medicine, and gave him the Tincture, which, according to the uſual cuſtom, was repeated once in five or ſix Hours. His Pain and Feaver laſted about thirty Hours, when they both left him, and in three or four Days he walked abroad. When he was next dreſs'd, which was at about four Days diſtance from the firſt dreſſing, the two firſt mentioned Wounds looked very well, but the laſt not ſo well. But at the third dreſſing, there came out of the laſt Wound, a great many pieces of his Cloaths, and that without any Digeſtion at all, only a great quantity of the forementioned ſerous Matter came from all the Wounds. In about three Weeks time, all the Wounds were filled with good Fleſh, and only

ly wanted skinning, but then being forced to march with the Army on Foot, for a great many Days together, the great motion of his Body, with the moving of his Cloathes, fretted the Wounded parts, and kept them from skinning, and likewise caused a little proud Flesh to grow up, which, when he came to have a little rest, presently vanished, and the Wounds were presently well.

Experiment XI.

AN Enſign in the Honourable the Lord *Belcaſtles* Regiment, in defending a Paſs againſt a Party of French, was with a Muſquet Bullet Wounded in the Head; the Bullet entered a little below the Temple, it paſſed on and tore the temporal Artery aſunder, and grazed further upon the Skull about four Inches. By the Order of His Majeſty, I went to take care of him: when I came to him, I found that he had been dreſs'd by the Chirurgeon of the ſaid Regiment, whom I ſent for to pull off his dreſſings, which were hard doſſels of Tow dipt in Spirit of Wine, he having crammed the Wound, which was an Inch wide, with them as full as it could hold. After his dreſſings were off,

Mr.

Mr. *Chombly* applyed my External Medicine, and gave him the Tincture. His Head and Face were much ſwelled, and he ſomething Feavoriſh. On the morrow I went to viſit him, when the ſwelling of his Head and Face was quite gone down, and his Feaver left him, and in about a Fortnight's time, his Wound, thó ſo wide, without being brought to ſuppuration at all, was perfectly well. In the mean time he never confin'd himſelf to his Tent, but marched on Foot with the Army, and declared, that from the firſt time my Medicines were applied, he felt no more Pain, than if he had never been hurt at all.

Experiment XII.

A Private Soldier in the Regiment of the Honorable Major General *Le Mullinier*, was at the ſame time with the forementioned Officer Wounded, but of him I had no Notice given me till the morrow, when the Major General, I being at the Officers Tent, ſent to me, to deſire me to take care of him. I found he had before been dreſs'd by the Chirurgeon of the Regiment, ſo for him I ſent to pull off his own, and apply my Medicines, Mr. *Chombly* not being then with me. The Poor Man had one Muſquet Ball enteerd at the corner of his Right Eye, paſſing through the *Os Spongioſum*, or ſpungy Bone of the Noſe, came out at the left left Eye, tearing that Eye all to pieces.

pieces. Another Bullet entered at the laſt Orifice, paſſed through the upper *Mandible*, or Jaw-Bone, and came out at the corner of the under one. Theſe two Wounds were crammed as full as they could hold with hard doſſels dipt in Spirit of Wine, which I ordered to be pulled out; which although it were perform'd with the greateſt difficulty imaginable, and putting the Poor Creature to almoſt intolerable Pain, yet his bravery and undauntedneſs of Spirit was ſuch, that he never ſo much as once ſinayed at it, all the time it was doing. After the Chirurgeon had, as he ſaid, pulled out all the doſſels, I deſired him to inject ſome of the ſolution of my Powder through both the Wounds; through the firſt mentioned Wound it paſſed very well, but although we tryed at both upper and lower Orifice of the laſt, we could not get any through; ſo I concluded there muſt be ſtill ſome doſſels be-

hind, as it afterwards appeared, but the Wound being very deep he could not come at ever a one with his Forceps; ſo we were forced to bind it up as it was. His Head and Face were ſwelled to ſuch a prodigious bigneſs, that he looked like a Monſter. He had likewiſe a violent Feaver, which by the taking of my Tincture was ſoon abated, and in two Days the ſwelling of his Head and Face was quite gone down, and he free from any Pain at all, although there were ſtill three large hard doſſels left in the laſt mentioned Wound. About five Days after he was Wounded, the Army began to march, and he on Horſeback, marched with the Army the whole March; and thô he were expoſed to Wind and ill weather, yet felt no Pain or diſorder in or about his Wounds. About the ſixth Day of the march, Mr. *Chombly* having pulled off the dreſſings to make freſh ones, the doſſels of the thick-

neſs

neſs of a Mans Thumb came out at the upper Orifice of the laſt Wound, without any trouble or Pain at all: All that time the lower Orifice was almoſt cloſed up, and afterwards the upper one began to mend apace, and in a little time his Wounds were all cured, and he is now in this City, very well, and his Face not in the leaſt disfigured, only the loſs of his Eye.

Experiment

Experiment XIII.

MR. *Lorridge*, a Lieutenant in the Honourable Brigadier *Lewiſton*'s Regiment, in a rencounter, received a ſlight Wound under the right Arm-pit, the Axillary Artery being alſo pricked, upon which enſued a large Flux of Blood, which was ſoon ſtopped, or rather pent in, by Mr. *Engliſh*, Chirurgeon to the Regiment. He was for about a Month managed by Mr. *Engliſh*, and Mr. *Hall*, principal Chirurgeon to the Engliſh Hoſpital. At the end of which time he had a freſh Flux of Blood, and before he had any help come in, I ſuppoſe, by what I ſaw in the Bed, and in his Breeches, he loſt ſeven or eight Pound of Blood; at laſt the Chirurgeons Mate of the Regiment coming, with a very ſtreight

treight Ligature he ſtoped the bleeding, which when he had done, he ſent for Mr. *Hall*, who immediatly came, but ſeeing how the caſe ſtood, he ſent for ſome of the moſt eminent Chirurgeons in *Ghent*, where the Lieutenant then was, to his aſſiſtance. They were at leaſt five Hours uſing their utmoſt endeavours to ſtop the Flux of Blood, which, although they had ſeveral times uſed red hot Irons, they could not do. At laſt Mr. *Hall* came to me and deſired me to go along with him, which, though I very well knew, that upon all occaſions he had ſpoken very reproachfully of me, I readily granted. When I came to the place where the Poor Gentleman was, I found him in a moſt deplorable condition, his Arm being ſwelled in a moſt prodigious manner, and abſolutely mortified by their hard Ligature, from his Fingers ends to his Shoulder, and his Spirits ſo exhauſted by the loſs of Blood, and

the

the intolerable Pain they had put him to, that it was altogether impoſſible he ſhould ſurvive many Hours; yet when the Ligature was never ſo little looſened, the Blood ruſhed forth with as much violence, as, I believe, it had done at all. However to be ſerviceable to an honeſt Gentlemen in diſtreſs, in any manner that I could, I prepared my External Medicine, which Mr. *Hall* applyed; then I ordered the Ligature to be undone, and the Blood ſeemed to be ſtopped, but in a minutes time or thereabouts, a ſmall quantity of Blood iſſued forth, which we all concluded was occaſioned by the Medicines not ſufficiently coming at the mouth of the Artery, which was ſo drawn up; the Artery being then totally divided, that the end of ones Finger would ſcarce reach it: But be it how it would, for ſecurities ſake, we pull'd off that dreſſing, and made a ſecond, which totally ſtopped the Flux of Blood,

Blood, without any Ligature or Compreſs at all. He lived about five Hours after, and tho' he was very reſtleſs and ſtruggled very much, yet there did not one drop of Blood more appear. I only mention this Experiment to demonſtrate to the World upon what ſlight occaſion, many looſe their lives by the common Methods, and how eaſily ſuch accidents may be prevented, if my Medicines are timely enough, and regularly uſed; as in the caſe of this Poor Gentleman; for had my Medicines been uſed, before his Arm had been mortified by their hard Ligature, the Flux of Blood would as eaſily have been ſtopped, and then he could not, morally ſpeaking, have miſcarried.

Experiment

Experiment XIV.

I being at a Coffee-house in *Ghent*, Sir *William Russel*, a Captain in the Regiment of Collonel *Coy*, came to me, and desired me to meet him in the Afternoon at a Tavern, to look upon a Man's Hand of their Regiment that was hurt, which I readily granted. In the Afternoon according to my promise, I went to the appointed Tavern, where I found him and the Trooper together. After I had examined the Man about his Wound, which had been received a Fortnight, his Hand and Arm being prodigiously swelled, mightily inflamed, and he in almost intollerable Pain; I desired him to send his Comrade for the Chirurgeon who had before looked after it, which accordingly he did, but the Chirurgeon

on either would not, or was aſhamed to come. So, at his requeſt, I opened the Wound my ſelf, which I found in a moſt lamentable condition, and began to mortify. The Sword entered about the middle of the palm of his Hand, and came out again at the top of his Wriſt; the two Orifices being about ſix Inches aſunder. The Wound being ſo very deep, I ſent my Boy for a Syringe, and with that I injected ſome of the Solution of my Powder through the Wound, and afterwards gave him a large Doſe of the Tincture in a Glaſs of Wine. We had not ſate above a Quarter of an Hour, but the poor Man pulled off his Hat, returning me Thanks in the moſt affectionate manner imaginable, ſaying, *Sir, when I came into your Company, I was in moſt intolerable Pain and Miſery, from which I was not to expect deliverance, but by the loſs of my Arm; but am now as much at eaſe, as ever I was in my whole Life.* This was about the twenty

twenty third Day of *September*, and ſince my return to *England*, I have received a moſt obliging Letter from Sir *William Ruſſel*, Dated the Third of *October*, wherein he tells me, that contrary to his expectation, the Man's Hand was perfectly well.

Directions

DIRECTIONS *for the uſe of the* Vulnerary Powder, *and of the Tincture of the Sulphur of* Venus.

SUCH a quantity of the Powder as will lye upon half a Guiney, may be diſſolved in 2, or 3 Spoonfuls of warm Water; where that cannot be had, you may take Urine. And in this Solution you may wet a Pledget, made either of fine Tow or Lint, with which wet Pledget, you may lightly dab the Lips of the Wound, and ſqueeſe a ſmall quantity of the Solution into

the Wound. Then apply your Pledget, and bind it on. If the Wound be an Inciſed one, after the Medicine is ſqueezed into it, it will be convenient to ſtitch the Lips together with a Needle and Threed, and then apply the Pledget. Now in Inciſed Wounds, when theſe Medicines are applyed as ſoon, or a little time after the Wound is received, one dreſſing is for the moſt part ſufficient, but two is as many as ever need be uſed. The ſecond Application to be made at the end of three or four Days: But in Gun-ſhot Wounds, or where there is great loſs of ſubſtance, more dreſſings are needful, and to be repeated once in about four Days. If the Wound be very deep, whether it be an Inciſed or a Gun-ſhot one, inſtead of ſqueezing in of the Solution, it is neceſſary that it be injected with a ſyringe.

As for the Tincture, in all very large fleſh Wounds, and thoſe within the Cavity of the Body, it ought

to be taken once in five or ſix Hours, and continued for four or five Days: The Doſe is half a Spoonful in a draught of any good Wine, but Old Hock I find beſt. In ſlight Wounds to be taken twice a Day, for two or three Days. Tho' if it be taken for a longer time, it can be no way prejudicial, but the quite contrary.

In great Fluxes of Blood, it will be convenient, for to hold on the Pledget wet in the Solution of the Powder, with your Hand, till the Flux of Blood ceaſeth, which in the greateſt will be in a ſmall time, and afterwards to uſe very eaſy Bandage.

FINIS.

BOOKS Sold by Daniel Brown, *at the* Bible *and* Swan *without* Temple-Bar.

NOvæ Hypotheſeos ad explicanda Febrium intermittentium ſymptomata & typos excogitatæ Hypotypoſis. Una cum Ætiologio Remediorum; ſpeciatim vero de Curatione per Corticem peruvianum. Acceſſit diſſertatiuncula de inteſtinorum motu Periſtaltico, a *Guilielmo Cole.* M. D.

A Phyſico-Medical Eſſay; concerncerning the late frequency of Apoplexies, with a general Method of their Prevention and Cure, in a Letter to a Phyſitian, by *W. Cole,* M.D.

Epiſtolæ Medicinales variis Occaſionibus conſcriptæ. Autore *Richardo Carr,* M.D. & Col. Reg. Med. *Lond.* Socio.